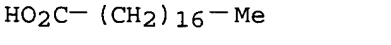
```
=> d his

     (FILE 'HOME' ENTERED AT 18:31:43 ON 06 JAN 2005)

     FILE 'REGISTRY' ENTERED AT 18:32:34 ON 06 JAN 2005
               E  LINOLEIC/CN
               E  CONJUGATED LINOLEIC/CN
L1            2 S E4

     FILE 'CAPLUS' ENTERED AT 18:33:57 ON 06 JAN 2005
L2         1165 S L1 OR  121250-47-3/RN OR  1839-11-8/RN OR CONJUGATED(2A)LINOL
L3          339 S L2 AND (CHOLESTER? OR LIPID OR LDL OR HDL OR HYPERCHOLESTE? O
L4           63 S L3 NOT PY>=2000

     FILE 'MEDLINE' ENTERED AT 18:52:25 ON 06 JAN 2005
L5           27 S L3

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 18:53:08 ON 06 JAN 2005
L6          369 S L5
L7          359 DUP REM L6 (10 DUPLICATES REMOVED)
L8           52 S L7 NOT PY>=1999
L9           98 S L2 AND (CHOLESTER? OR LDL OR HDL OR HYPERCHOLESTE? OR HYPOCHO

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 19:11:42 ON
     06 JAN 2005
L10         201 S L9
L11          20 S L10 NOT PY>=1999
L12          20 DUP REM L11 (0 DUPLICATES REMOVED)

     FILE 'FRFULL, PATDPAFULL, PCTFULL, RDISCLOSURE, USPATFULL, USPAT2'
     ENTERED AT 19:21:27 ON 06 JAN 2005
L13           3 S L11
```

=> s e4
L1 2 "CONJUGATED LINOLEIC ACID"/CN

=> d rn str cn 1-2

L1 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN
RN 121250-47-3 REGISTRY
CN Octadecadienoic acid (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 9,11(or 10,12)-Octadecadienoic acid
CN **Conjugated linoleic acid**

CM 1



L1 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN
RN 1839-11-8 REGISTRY

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Δ9,11-Octadecadienoic acid
CN 9,11-Linoleic acid
CN CLA 80
CN **Conjugated linoleic acid**
CN Nouracid DE 554
CN NSC 7886
CN Ricineic acid
CN Ricinenic acid
CN Selin CLA

=> d ibib abs 1-3

L13 ANSWER 1 OF 3 PCTFULL COPYRIGHT 2005 Univentio on STN
ACCESSION NUMBER: 1998029136 PCTFULL ED 20020514
TITLE (ENGLISH): STABILIZED TRICYCLIC COMPOUND
TITLE (FRENCH): COMPOSE TRICYCLIQUE STABILISE
INVENTOR(S): IMOTO, Soichiro;
YOSHIOKA, Minoru;
KASHIHARA, Toshio
PATENT ASSIGNEE(S): TAKEDA CHEMICAL INDUSTRIES, LTD.;
IMOTO, Soichiro;
YOSHIOKA, Minoru;
KASHIHARA, Toshio
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9829136	A1	19980709

DESIGNATED STATES
W: AL AM AU AZ BA BB BG BR BY CA CN CU CZ EE GE GW HU ID
IL IS KG KR KZ LC LK LR LT LV MD MG MK MN MX NO NZ PL
RO RU SG SI SK SL TJ TM TR TT UA US UZ VN YU GH GM KE
LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH
DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG
CI CM GA GN ML MR NE SN TD TG
APPLICATION INFO.: WO 1997-JP4819 A 19971225
PRIORITY INFO.: JP 1996-8/349256 19961227
ABEN The present invention provides a pharmaceutical composition which contains an oleginous base
and a tricyclic compound or a pharmaceutically acceptable salt.
ABFR L'invention concerne une composition pharmaceutique qui contient une base oleagineuse et un
compose tricyclique ou un sel pharmaceutiquement acceptable.

L13 ANSWER 2 OF 3 USPATFULL on STN
ACCESSION NUMBER: 1998:144131 USPATFULL
TITLE: Method for reducing secetion of apolipoprotein B in animals by administering conjugated linoleic acid
INVENTOR(S): Pariza, Michael W., Madison, WI, United States
Lee, Kisun N., Seoul, Korea, Republic of
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5837733		19981117	
APPLICATION INFO.:	US 1997-805486		19970226	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Henley, III, Raymond
LEGAL REPRESENTATIVE: Quarles & Brady
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 565
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of reducing apolipoprotein B secretion comprises making available to animal cells an amount of conjugated linoleic acid effective to reduce apolipoprotein B secretion from the cells. A related method comprises administering to an animal a safe and effective amount of a conjugated linoleic acid to reduce apolipoprotein B secretion into the animal's bloodstream.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 3 OF 3 USPATFULL on STN
ACCESSION NUMBER: 96:82718 USPATFULL

TITLE: Method for reducing body fat in animals
INVENTOR(S): Cook, Mark E., Madison, WI, United States
Pariza, Michael W., Madison, WI, United States
Park, Yeonhwa, Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5554646		19960910
APPLICATION INFO.:	US 1994-297472		19940829 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1992-875896, filed on 29 Apr 1992, now patented, Pat. No. US 5430066 which is a continuation-in-part of Ser. No. US 1993-7413, filed on 22 Jan 1993, now patented, Pat. No. US 5428072
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Dees, Jose G.
ASSISTANT EXAMINER: Frazier, Barbara S.
LEGAL REPRESENTATIVE: Quarles & Brady
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 337
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of reducing body fat comprises administering to the animal a safe and effective amount of a conjugated linoleic acid. Methods of preserving or increasing the animal's body protein by administering the conjugated linoleic acid also are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d kwic 1-3

L13 ANSWER 1 OF 3 PCTFULL COPYRIGHT 2005 Univentio on STN

DETD . . . 3-
hydroxynonanoic acid, 2-hydroxydecanoic acid, 2-hydroxylauric acid, 2-hydroxytetradecanoic acid, 3-hydroxymyristic acid, 2-hydroxyhexadecanoic acid, 2-hydroxyoctadecanoic acid, 12-hydroxystearic acid, 2-hydroxyeicosanoic acid, 2-hydroxydocosanoic acid, ricinolic **acid**, and **ricinelaidic acid**.

The sterol or its ester includes, for example, **cholesterol**, a-cholestane, 0-cholestanol, epicoprostanol, demosterol, fucosterol, lanosterol, ergosterol, A-sitosterol, C2-24 saturated fatty acid **cholesterol** esters, and C14-24 unsaturated fatty acid **cholesterol** esters (1-6 double bonds).

L13 ANSWER 2 OF 3 USPATFULL on STN
SUMM In today's health conscious society there is a great interest in blood **cholesterol** levels. Blood **cholesterol** is classified according to the density of its associated lipoproteins. The lipoprotein classes include very low density lipoproteins (VLDL), low density lipoproteins (**LDL**) and high density lipoproteins (**HDL**). The corresponding **cholesterol** classes are VLDL-, **LDL-**, and **HDL-cholesterol**, respectively.
SUMM . . . AI) and apolipoprotein B (apo B) are proteins that associate specifically with particular blood lipids. Apo AI associates specifically with **HDL-cholesterol**, the so-called "good" **cholesterol**. Apo B associates with VLDL-**cholesterol** and **LDL-cholesterol**, the so-called "bad" **cholesterol**. It is thought that Apo B plays a role in maintaining VLDL- and **LDL-cholesterol** in the bloodstream. It is thought that by reducing secretion of apo B into the bloodstream, the amount of bad **cholesterol** retained in the

L8 ANSWER 28 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1993:392112 BIOSIS
DOCUMENT NUMBER: PREV199396067412
TITLE: A comparison of the metabolism of cis,cis-, cis,trans/trans,cis-and trans,trans-9,12-octadecadienoic acid in rat liver.
AUTHOR(S): Fukuda, Nobuhiro [Reprint author]; Igari, Naomi; Etoh, Tetsuhiro; Hidaka, Toshiro; Ikeda, Ikuo; Sugano, Michihiro
CORPORATE SOURCE: Lab. Food Sci. and Nutrition, Dep. Biological Resource Sci., Fac. Agric., Miyazaki Univ., Miyazaki 889-21, Japan
SOURCE: Nutrition Research, (1993) Vol. 13, No. 7, pp. 779-786. CODEN: NTRSDC. ISSN: 0271-5317.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Aug 1993
Last Updated on STN: 3 Jan 1995

AB The effect of geometrical isomers of 9,12-octadecadienoic (18:2) acid on ketogenesis and **lipid** secretion was compared in isolated perfused rat liver. The hepatic uptake of 18:2 acid isomers was similar in the cis,cis (cc)-, trans,trans (tt)- and a mixture of cis,trans/trans,cis (ct/tc)-isomers. The trans-isomers in comparison with the cis-counterpart stimulated ketogenesis, while reduced hepatic secretion of triacylglycerol and **cholesterol** and the concentration of triacylglycerol in the post-perfused liver. This reciprocal response was dependent on the number of trans double bonds. The trans-isomers infused during the 4 h-perfusion periods were actively incorporated into hepatic **lipids** and secreted at the expense of endogenous cc-18:2 acid, although the mixture of the mon-trans isomers as compared to the di-trans isomer incorporated more into liver **lipids** except for phospholipid. On the other hand, less ct-18:2 was incorporated than tc-18:2 into both hepatic and perfusate **lipids**. These results indicate that both the position and the number of the trans-double bonds in the 18:2 acid determine the pathways of oxidation and esterification.

STN

ACCESSION NUMBER: 1998:201479 BIOSIS
DOCUMENT NUMBER: PREV199800201479
TITLE: Effect of short - term feeding of conjugated linoleic acid (CLA) on serum **cholesterol** and atherosclerosis development in hamsters.
AUTHOR(S): Gavino, V. C.; Scalzo, G.; Tuchweber, B.
CORPORATE SOURCE: Dep. Nutr., Univ. Montreal, Montreal, PQ H3C 3J7, Canada
SOURCE: FASEB Journal, (March 17, 1998) Vol. 12, No. 4, pp. A535. print.
Meeting Info.: Annual Meeting of the Professional Research Scientists on Experimental Biology 98, Part 1. San Francisco, California, USA. April 18-22, 1998. Federation of American Societies for Experimental Biology.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 4 May 1998
Last Updated on STN: 4 May 1998

L8 ANSWER 13 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1999:313186 BIOSIS
DOCUMENT NUMBER: PREV199900313186
TITLE: Conjugated linoleic acid (CLA) - A new factor modifying composition of poultry meat.
AUTHOR(S): Szymczyk, Beata [Reprint author]; Pisulewski, Pawel
CORPORATE SOURCE: Zaklad Zywienia Zwierzat, Instytut Zootechniki, 32-083, Balice, Krakowa, Poland
SOURCE: Biuletyn Informacyjny Instytut Zootechniki, (1998) Vol. 36, No. 4, pp. 57-64. print.
ISSN: 0209-2492.
DOCUMENT TYPE: Article
LANGUAGE: Polish
ENTRY DATE: Entered STN: 17 Aug 1999
Last Updated on STN: 17 Aug 1999

AB Composition of meat can be changed by genetic and/or feeding manipulation. Conjugated linoleic acid (CLA) was found to modify the meat: fat ratio. Supplementing mice, rats, chickens and pigs with diets containing 0.5% CLA reduced body fat content to 57-70, 23, 22 and 27%, respectively and increased lean body mass (and/or carcass water). The study has shown that CLA inhibits lipoprotein lipase and increases the activity of hormone sensitive lipase which breaks down fats stored in fat cells and returns the fats to the blood stream to be used as an energy source. Additionally, CLA appears to be **hypocholesterolemic**, antiatherogenic and anticarcinogenic.

L11 ANSWER 10 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1999:313186 BIOSIS
DOCUMENT NUMBER: PREV199900313186
TITLE: Conjugated linoleic acid (CLA) - A new factor modifying composition of poultry meat.
AUTHOR(S): Szymczyk, Beata [Reprint author]; Pisulewski, Pawel
CORPORATE SOURCE: Zaklad Zywienia Zwierzat, Instytut Zootechniki, 32-083, Balice, Krakowa, Poland
SOURCE: Biuletyn Informacyjny Instytut Zootechniki, (1998) Vol. 36, No. 4, pp. 57-64. print.
ISSN: 0209-2492.
DOCUMENT TYPE: Article
LANGUAGE: Polish
ENTRY DATE: Entered STN: 17 Aug 1999
Last Updated on STN: 17 Aug 1999
AB Composition of meat can be changed by genetic and/or feeding manipulation. Conjugated linoleic acid (CLA) was found to modify the meat: fat ratio. Supplementing mice, rats, chickens and pigs with diets containing 0.5% CLA reduced body fat content to 57-70, 23, 22 and 27%, respectively and increased lean body mass (and/or carcass water). The study has shown that CLA inhibits lipoprotein lipase and increases the activity of hormone sensitive lipase which breaks down fats stored in fat cells and returns the fats to the blood stream to be used as an energy source. Additionally, CLA appears to be **hypocholesterolemic**, antiatherogenic and anticarcinogenic.

L11 ANSWER 11 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1999:100178 BIOSIS
DOCUMENT NUMBER: PREV199900100178
TITLE: A review paper: Current knowledge of ghee and related products.
AUTHOR(S): Sserunjogi, Mohammed L. [Reprint author]; Abrahamsen, Roger K.; Narvhus, Judith
CORPORATE SOURCE: Dep. Food Sci., Agricultural Univ. Norway, Box 5036, 1432 Aas, Norway
SOURCE: International Dairy Journal, (Aug., 1998) Vol. 8, No. 8, pp. 677-688. print.
ISSN: 0958-6946.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Mar 1999
Last Updated on STN: 4 Mar 1999
AB Ghee is produced mainly by indigenous methods in Asia, the Middle-East and Africa and the methods of manufacture and characteristics vary. Some ambiguity in the definition of ghee occurs mainly due to regional differences and preferences for the product, commonly used for culinary purposes but also for particular social functions and therapeutic purposes. The characteristic flavour of ghee is its major criterion for acceptance. Flavour is greatly influenced by the fermentation of the cream or butter and the heating processes. Carbonyls, lactones and free fatty acids are reported to be the key ghee flavouring compounds. Ghee is fairly shelf-stable largely because of its low moisture content and possible antioxidative properties. Ghee may contain high amounts of conjugated linoleic acid, a newly reported anticarcinogen. However, it is also reported that, under certain circumstances, it may contain certain amounts of **cholesterol** oxidation compounds (COPS) which may cause adverse health effects.

L11 ANSWER 12 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1998:201479 BIOSIS
DOCUMENT NUMBER: PREV199800201479
TITLE: Effect of short - term feeding of conjugated linoleic acid (CLA) on serum **cholesterol** and atherosclerosis

development in hamsters.
AUTHOR(S): Gavino, V. C.; Scalzo, G.; Tuchweber, B.
CORPORATE SOURCE: Dep. Nutr., Univ. Montreal, Montreal, PQ H3C 3J7, Canada
SOURCE: FASEB Journal, (March 17, 1998) Vol. 12, No. 4, pp. A535. print.
Meeting Info.: Annual Meeting of the Professional Research Scientists on Experimental Biology 98, Part 1. San Francisco, California, USA. April 18-22, 1998. Federation of American Societies for Experimental Biology.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 4 May 1998
Last Updated on STN: 4 May 1998

L11 ANSWER 13 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1998:139432 BIOSIS
DOCUMENT NUMBER: PREV199800139432
TITLE: Safflower oil consumption does not increase plasma conjugated linoleic acid concentrations in humans.
AUTHOR(S): Herbel, Barbara K.; McGuire, Michelle K.; McGuire, Mark A.; Shultz, Terry D. [Reprint author]
CORPORATE SOURCE: Dep. Food Sci. and Human Nutrition, Washington State Univ., Pullman, WA 99164-6376, USA
SOURCE: American Journal of Clinical Nutrition, (Feb., 1998) Vol. 67, No. 2, pp. 332-337. print.
CODEN: AJCNAC. ISSN: 0002-9165.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Mar 1998
Last Updated on STN: 4 May 1998
AB Conjugated linoleic acid (CLA) is a mixture of positional and geometric isomers of linoleic acid (LA) with conjugated double bonds. CLA has anticarcinogenic properties and has been identified in human tissues, dairy products, meats, and certain vegetable oils. A variety of animal products are good sources of CLA, but plant oils contain much less. However, plant oils are a rich source of LA, which may be isomerized to CLA by intestinal microorganisms in humans. To investigate the effect of triacylglycerol-esterified LA consumption on plasma concentrations of esterified CLA in total lipids, a dietary intervention (6 wk) was conducted with six men and six women. During the intervention period a salad dressing containing 21 g safflower oil providing 16 g LA/d was added to the subjects' daily diets. Three-day diet records and fasting blood were obtained initially and during dietary and postdietary intervention periods. Although LA intake increased significantly during the dietary intervention, plasma CLA concentrations were not affected. Plasma total **cholesterol** and **LDL-cholesterol** concentrations were significantly lower after addition of safflower oil to the diet. In summary, consumption of triacylglycerol-esterified LA in safflower oil did not increase plasma concentrations of esterified CLA in total lipids.

L11 ANSWER 14 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1995:442460 BIOSIS
DOCUMENT NUMBER: PREV199598456760
TITLE: Differential effects of geometrical isomers of octadecadienoic acids on ketogenesis and lipid secretion in the livers from rats fed a **cholesterol**-enriched diet.
AUTHOR(S): Fukuda, Nobuhiro; Etoh, Tetsuhiro; Wada, Kouichi; Hidaka, Toshiro; Yamamoto, Kyosuke; Ikeda, Ikuo; Sugano, Michihiro
CORPORATE SOURCE: Lab. Food Sci. Nutrition, Dep. Biological Resource Sci., Fac. Agric., Miyazaki Univ., Miyazaki 889-21, Japan
SOURCE: Annals of Nutrition and Metabolism, (1995) Vol. 39, No. 3, pp. 185-192.
CODEN: ANUMDS. ISSN: 0250-6807.

DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Oct 1995
Last Updated on STN: 1 Nov 1995

AB The effect of cis,cis (cc)- and trans,trans (tt)-9,12-octadecadienoic (18:2) acids on ketogenesis and lipid secretion was compared in isolated perfused livers from **cholesterol**-fed rats. The hepatic uptake of 18:2 acids was comparable in both isomers. The livers perfused with cc-18:2 acid in comparison with those perfused without fatty acid substrate produced approximately 4-fold more ketone bodies accompanying the rise of the beta-hydroxybutyrate:acetoacetate ratio, while the tt-acid isomer further increased these parameters. The hepatic secretion rates of triglyceride and phospholipid as well as **cholesterol** were all elevated on perfusing the cc-18:2 acid as compared to without fatty acid. In contrast, the rates observed with the tt18:2 acid isomer except for phospholipid were intermediate, indicating a reciprocal response in ketogenesis and lipid secretion by the trans isomer. The rate of incorporation of trans-fatty acid into perfusate triglyceride and **cholesterol** ester were lower than cis-acid, but vice versa into perfusate phospholipids. On the other hand, the effects of trans-fatty acid on the concentration and composition of hepatic lipids were less clear. These results emphasize the differential effect of geometrical isomers of the 18:2 acids on oxidation and esterification even in the livers containing a high level of **cholesterol**.

L11 ANSWER 15 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1993:392112 BIOSIS
DOCUMENT NUMBER: PREV199396067412
TITLE: A comparison of the metabolism of cis,cis-, cis,trans/trans,cis-and trans,trans-9,12-octadecadienoic acid in rat liver.
AUTHOR(S): Fukuda, Nobuhiro [Reprint author]; Igari, Naomi; Etoh, Tetsuhiro; Hidaka, Toshiro; Ikeda, Ikuo; Sugano, Michihiro
CORPORATE SOURCE: Lab. Food Sci. and Nutrition, Dep. Biological Resource Sci., Fac. Agric., Miyazaki Univ., Miyazaki 889-21, Japan
SOURCE: Nutrition Research, (1993) Vol. 13, No. 7, pp. 779-786. CODEN: NTRSDC. ISSN: 0271-5317.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Aug 1993
Last Updated on STN: 3 Jan 1995

AB The effect of geometrical isomers of 9,12-octadecadienoic (18:2) acid on ketogenesis and lipid secretion was compared in isolated perfused rat liver. The hepatic uptake of 18:2 acid isomers was similar in the cis,cis (cc)-, trans,trans (tt)- and a mixture of cis,trans/trans,cis (ct/tc)-isomers. The trans-isomers in comparison with the cis-counterpart stimulated ketogenesis, while reduced hepatic secretion of triacylglycerol and **cholesterol** and the concentration of triacylglycerol in the post-perfused liver. This reciprocal response was dependent on the number of trans double bonds. The trans-isomers infused during the 4 h-perfusion periods were actively incorporated into hepatic lipids and secreted at the expense of endogenous cc-18:2 acid, although the mixture of the mon-trans isomers as compared to the di-trans isomer incorporated more into liver lipids except for phospholipid. On the other hand, less ct-18:2 was incorporated than tc-18:2 into both hepatic and perfusate lipids. These results indicate that both the position and the number of the trans-double bonds in the 18:2 acid determine the pathways of oxidation and esterification.

L11 ANSWER 16 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1987:403594 BIOSIS
DOCUMENT NUMBER: PREV198784079774; BA84:79774
TITLE: METABOLISM IN HUMANS OF CIS-12 TRANS-15 OCTADECADIENOIC ACID RELATIVE TO PALMITIC STEARIC OLEIC AND LINOLEIC ACIDS.
AUTHOR(S): EMKEN E A [Reprint author]; ROHWEDDER W K; ADLOF R O; RAKOFF H; GULLEY R M

CORPORATE SOURCE: NORTH REG RES CENT, 1815 N UNIVERSITY ST, PEORIA, ILL 61604, USA
SOURCE: Lipids, (1987) Vol. 22, No. 7, pp. 495-504.
CODEN: LPDSAP. ISSN: 0024-4201.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 18 Sep 1987
Last Updated on STN: 18 Sep 1987

AB Mixtures of triglycerides containing deuterium-labeled hexadecanoic acid (16:0), octadecanoic acid (18:0), cis-9-octadecenoic acid (9c-18:1), cis-9,cis-12-octadecadienoic acid (9c, 12c-18:2) and cis-12,trans-15-octadecadienoic acid (12c,15t-18:2) were fed to two young-adult males. Plasma lipid classes were isolated from samples collected periodically over 48 hr. Incorporation and turnover of the deuterium-labeled fats in plasma lipids were followed by gas chromatography-mass spectrometry (GC-MS) analysis of the methyl ester derivatives. Absorption of the deuterated fats was followed by GC-MS analysis of chylomicron triglycerides isolated by ultracentrifugation. Results were the following: (i) endogenous fat contributed about 40% of the total fat incorporated into chylomicron triglycerides; (ii) elongation, desaturation and chain-shortened products from the deuterated fats were not detected; (iii) the polyunsaturated isomer 12c,15t-18:2 was metabolically more similar to saturated and 9c-18:1 fatty acids than to 9c,12c-18:2; (iv) relative incorporation of 9c,12c-18:2 into phospholipids did not increase proportionally with an increase of 9c,12c-18:2 in the mixture of deuterated fats fed; (v) absorption of 16:0, 18:0, 9c-18:1, 9c,12c-18:2 and 12c,15t-18:2 were similar; and (vi) data for the 1- and 2-acyl positions of phosphatidylcholine and for **cholesteryl** ester fractions reflected the known high specificity of phosphatidylcholine acyltransferase and lecithin:**cholesteryl** acyltransferase for 9c,12c-18:2. These results illustrate that incorporation of dietary fatty acids into human plasma lipid classes is selectively controlled and that incorportation of dietary 9c,12c-18:2 is limited. These resuts suggest that nutritional benefits of diets high in 9c,12c-18:2 may be of little value to normal subjects and that the 12c,15t-18:2 isomer in hydrogenated fat is not a nutritional liability at the present dietary level.

L11 ANSWER 17 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 1984:340112 BIOSIS
DOCUMENT NUMBER: PREV198478076592; BA78:76592
TITLE: OXIDATION AND ESTERIFICATION OF CIS AND TRANS ISOMERS OF OCTADECENOIC ACIDS AND OCTADECADIENOIC ACIDS IN ISOLATED RAT LIVER.
AUTHOR(S): IDE T [Reprint author]; SUGANO M
CORPORATE SOURCE: LAB OF NUTRITION CHEM, KYUSHU UNIV SCH OF AGRIC 46-09, FUKUOKA 812, JPN
SOURCE: Biochimica et Biophysica Acta, (1984) Vol. 794, No. 2, pp. 281-291.
CODEN: BBACAQ. ISSN: 0006-3002.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB The metabolism of 9-octadecenoic and 9,12-octadecadienoic acids with different geometric configurations was compared in isolated perfused rat liver. More ketone bodies were produced when the trans-isomers were infused. Only the cis-isomer augmented the triacylglycerol secretion almost entirely as very-low-density lipoprotein (VLDL). Although these responses were independent of the difference in the degree of unsaturation in both the cis- and trans-isomers, the trans-monoenic acid compared to the trans-dienic acid was incorporated more readily into perfusate and hepatic lipids. Quantitative information was obtained with radioactive tracer experiments. The hepatic uptakes of 9-[10-14C]octadecenoic acids were comparable in the cis- and trans-isomers. The trans-octadecenoic acid compared to the cis counterpart was oxidized more readily and incorporated more into liver phospholipid but less into perfusate and liver triacylglycerol. These reciprocal responses counterbalanced each

other. The lower rates of triacylglycerol synthesis and secretion in the liver perfused with the trans-octadecenoic acid was confirmed using [2-3H]glycerol as a tracer. The marked difference in the channeling of cis- and trans-fatty acids in the pathways of oxidation and esterification seems to modify the VLDL secretion in perfused rat liver. Present observations indicate a considerable difference in the fate of unsaturated fatty acids with different configurations. trans-Fatty acids are expected to be an efficient energy source in animal tissues and may not be **hyperlipidemic**.

L11 ANSWER 18 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1976:96842 BIOSIS
DOCUMENT NUMBER: PREV197612096842; BR12:96842
TITLE: LIPID PER OXIDATION AND ATHERO SCLEROSIS.
AUTHOR(S): WILSON R B
SOURCE: Critical Reviews in Food Science and Nutrition, (1976) Vol. 7, No. 4, pp. 325-338.
ISSN: 1040-8398.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L11 ANSWER 19 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1973:167454 BIOSIS
DOCUMENT NUMBER: PREV197355067447; BA55:67447
TITLE: ROLE OF THE CECUM IN MAINTAINING DELTA-5 STEROID REDUCING AND FATTY-ACID REDUCING ACTIVITY OF THE RAT INTESTINAL MICRO FLORA.
AUTHOR(S): EYSSEN H; PIESSENS-DENEF M; PARMENTIER G
SOURCE: Journal of Nutrition, (1972) Vol. 102, No. 11, pp. 1501-1512.
CODEN: JONUAI. ISSN: 0022-3166.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

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ACCESSION NUMBER: 94291042 EMBASE
DOCUMENT NUMBER: 1994291042
TITLE: Blood antioxidants and indices of lipid peroxidation in subjects with angina pectoris.
AUTHOR: Duthie G.G.; Beattie J.A.G.; Arthur J.R.; Franklin M.; Morrice P.C.; James W.P.T.
CORPORATE SOURCE: Rowett Research Institute, Greenburn Road,Bucksburn, Aberdeen AB2 9SB, United Kingdom
SOURCE: Nutrition, (1994) 10/4 (313-316).
ISSN: 0899-9007 CODEN: NUTRER
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB We tested the antioxidant hypothesis of coronary heart disease (CHD) by comparing blood antioxidants, indices of lipid peroxidation and classic (CHD) risk factors of 25 subjects with stable angina pectoris with 200 matched controls. Angina subjects had significantly increased plasma concentrations of total **cholesterol**, low density lipoproteins and triglycerides although body mass index, plasma cotinine concentration and blood pressure were similar to those of the control group. Plasma concentrations of vitamin A, vitamin C and **cholesterol**-adjusted vitamin E did not differ between the groups although subjects with angina had significantly decreased plasma uric acid concentrations and elevated

indices of lipid peroxidation. Although the results are compatible with the antioxidant hypothesis, it is unclear whether the increased oxidative stress in angina sufferers is a cause or consequence of the disease.